

EXPLORING APPLICATIVES IN RUKAI*

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This paper attempts to investigate applicatives in Rukai, a Formosan language, by examining distinct thematic roles marked by the oblique marker *ki*. This paper argues that (i) the *ki*-marked thematic roles are in fact applied arguments in applicatives; (ii) the (a)symmetries in the passive are due to A-movement properties that can be accounted for by the phased-based approach (Chomsky 2001; McGinnis 2001, 2002); (iii) Rukai's inventory of applicative heads houses at least ApplHBenefactive, ApplLSource, ApplLRecipient, ApplHGoal, ApplHMalefactive, and ApplHReason; and (iv) Chen's (2008) tripartite distinction of grammatical voice (e.g., the active/passive/object voice) in Rukai is doubtful.

1. Introduction

Crosslinguistic variations in the syntax of applicative constructions have been studied in previous literature. Pykkänen (2002) proposes that there are two types of applicatives, High applicatives and Low applicatives, which have distinct lexical semantics and different argument structures. In addition to Pykkänen's argument, McGinnis (2001, 2002) argues that the distinction between High and Low applicatives is a result from a difference in movement to the subject position and that such distinction can be correctly predicted by a phased-based account (Chomsky 2001). As for Formosan languages, Chen (2007) identifies different projections for the High/Low applicatives in Atayal.

Following the previous research on applicative constructions and by first giving a description of the thematic roles that can be marked by the oblique marker *ki* in Rukai, another Formosan language, this paper attempts to explore whether Rukai has applicative constructions. The central proposal is that (i) the *ki*-marked thematic roles are in fact applied arguments in applicatives; (ii) the (a)symmetries in the passive, as demonstrated in section 3, are due to A-movement properties that can be accounted for by the phased-based approach in McGinnis (2001, 2002); and (iii) Rukai's inventory of applicative heads

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houses at least ApplHBenefactive, ApplLSource, ApplLRecipient, ApplHGoal, ApplHMalefactive, and ApplHReason. Based on the analysis in this paper, I will also point out that Chen's (2008) tripartite distinction of grammatical voice (e.g., the active/passive/object voice) in Rukai is questionable.

This paper is organized as follows: section 2 will briefly describe the use of the oblique marker *ki* to mark various thematic roles; (a)symmetries in the Rukai passive voice constructions will be presented in section 3, followed by section 4, which provides an phase-based solution as in McGinnis (2001, 2002) to such (a)symmetries; section 5 examines the inventory of Rukai applicative heads and section 6 discusses the implication in the analysis presented in this paper for Chen's (2008) argument for the object voice in Rukai. Finally, section 6 concludes this paper.

2. Thematic roles marked by the oblique marker *ki*

Rukai has three analytic case markers *ka*, *ku* and *ki*, among which *ka* marks nominative, *ku* accusative, and *ki* oblique and genitive.¹ As pointed out by Chen (2008), *ki* seems to have the most divergent behaviors in terms of its grammatical occurrences.² For the purpose of this paper, in this section I will only give a brief description of the various thematic roles that can be marked by the oblique case marker *ki*, with emphasis on the Recipient, the Source, the Benefactive, the Goal, the Malefactive, and the Reason.

2.1 Recipient

One of the thematic roles that can be marked by the oblique case marker *ki* is the Recipient, as shown in (1) and (2).³

- (1) a. wa-bayi ku laimai ka Takanau ki Muni
 NFUT⁴-give ACC clothes NOM PN OBL PN
 'Takanau gave the clothes to Muni.'

¹ These three case markers have rather complicated grammatical behaviors that frequently interact with tense, aspect, and specificity/definiteness, which are beyond the scope of this paper. Readers are referred to Chen (2008) for more discussion of these three case markers.

² For the purpose of the paper, I only discuss the thematic roles introduced by the oblique marker *ki*. Readers are referred to Chen (2008) for more details regarding the use of *ki*.

³ The data were collected during a fieldtrip from 05/22 to 05/26, 2009, in Budai township, Pingtung county, Taiwan.

⁴ List of abbreviations:

1	first person	2	second person	3	third person
ACC	accusative case	CAU	causative	DEM	demonstrative
GEN	genitive case	NOM	nominative case	NFUT	nonfuture tense
OBL	oblique case	OV	object voice	PASS	passive voice
PN	proper name	RED	reduplication	SG	singular

- b. wa-bayi ku laimai ki Muni ka Takanau
 NFUT-give ACC clothes OBL PN NOM PN
 ‘Takanau gave the clothes to Muni.’
- (2) a. wa-saulri ku paisu ka Takanau ki Muni
 NFUT-return ACC money NOM PN OBL PN
 ‘Takanau returned the money to Muni.’
- b. wa-saulri ku paisu ki Muni ka Takanau
 NFUT-return ACC money OBL PN NOM PN
 ‘Takanau returned the money to Muni.’

As can be seen in (1) and (2), *Muni* is marked by *ki* as the Recipient of the Themes *laimai* ‘clothes’ and *paisu* ‘money’ respectively. Note that the word order in Rukai is flexible: the Recipient *Muni* can either precede or follow the Agent *Takanau*, which is nominative-case-marked by *ka*. The flexible word order is also observed in Chen (2008) and in the subsequent sections in this paper.

2.2 Source

The oblique marker *ki* can also be used to mark the Source, as shown in (3).

- (3) a. wa-langai ku daane ka Muni ki Takanau
 NFUT-buy ACC house NOM PN OBL PN
 ‘Muni bought the house from Takanau.’
- b. wa-langai ku daane ki Takanau ka Muni
 NFUT-buy ACC house OBL PN NOM PN
 ‘Muni bought the house from Takanau.’⁵

In (3), *ki* marks the Source *Takanau*, from who the Agent *Muni* bought the house, which is the Theme.

2.3 Benefactive

In Rukai, we find abundant examples, as illustrated in (4)-(10), in which the oblique marker is used to mark the Benefactive.

Transitive

- (4) pa-ka-tuase ku tigami ka Muni ki Takanau
 CAU-KA-leave ACC letter NOM PN OBL PN
 ‘Muni sent the letter for Takanau.’

⁵ Since the oblique and the genitive cases share the same form *ki*, (3b) is ambiguous with the other meaning ‘Muni bought Takanau’s house.’

- (5) wa-cikipi ku laimai ka Muni ki Takanau
 NFUT-knit ACC clothes NOM PN OBL PN
 ‘Muni knitted the clothes for Takanau.’
- (6) wa-bulru-bulru-aku ku abulru ki Muni
 NFUT-RED-tell-1SG.NOM ACC story OBL PN
 ‘I told the story for Muni.’⁶

Intransitive

- (7) tu-a-daane ka Muni ki Takanau
 do-NFUT-house NOM PN OBL PN
 ‘Muni built the house for Takanau.’
- (8) wa-dralra-dhaku ki Muni
 NFUT-dance-1SG.NOM OBL PN
 ‘I danced for Muni.’
- (9) wa-sena-dhaku ki Muni
 NFUT-sing-1SG.NOM OBL PN
 ‘I sang for Muni.’
- (10) ki-kali-aku ki Muni
 pluck-yam-1SG.NOM OBL PN
 ‘I plucked yams for Muni.’

Examples (4)-(6) involve transitive verbs, whereas (7)-(10) contain intransitive verbs. In both sets of examples, the Benefactive is marked by the oblique *ki*.

2.4 Goal

Though not as rich in examples that involve the Benefactive, Rukai does have the Goal marked by the oblique *ki*, as exemplified by (11)-(13).

- (11) wa-kela ki daane-li ka Muni
 NFUT-come OBL house-1SG.GEN NOM PN
 ‘Muni came to my house.’
- (12) wa-daruru ki daane-li ka Muni
 NFUT-arrive OBL house-1SG.GEN NOM PN
 ‘Muni arrived at my house.’
- (13) pa-ka-tuase ku tigami ka Muni ki Takanau
 CAU-KA-leave ACC letter NOM PN OBL PN
 ‘Muni sent the letter to Takanau.’

⁶ For the same reason as mentioned in footnote 3, (6) has an alternative meaning ‘I told Muni’s story.’

In (11) and (12), the *ki*-marked *daaneli* ‘my house’ was the terminal *Muni* approached; whereas in (13), *Takanau* is marked by *ki* as the end to which the accusative-case-marked Theme *tigami* ‘letter’ was transited.

2.5 Malefactive/Reason

The last two *ki*-marked thematic roles to be introduced in this section are the Malefactor and the Reason. Examples (14) and (15) contain the Malefactive and the Reason respectively, both are marked by the oblique *ki*.

- (14) wa-tubi ki Takanau ka Muni
 NFUT-cry OBL PN NOM PN
 ‘Muni cried because of Takanau.’
- (15) wa-lakai ki Takanau ka Muni
 NFUT-laugh OBL PN NOM PN
 ‘Muni laughed because of Takanau.’

In (14), *Muni* cried for the sake of *Takanau*; while in (15), *Takanau* was the Reason that *Muni* laughed.

2.6 Summary

So far, we have seen that the oblique marker *ki* can serve to mark distinct thematic roles, including the Recipient, the Source, the Benefactive, the Goal, the Malefactor, and the Reason.⁷ In section 3, I will show that in the Rukai passive voice constructions the Theme argument behaves asymmetrically with the *ki*-marked Recipient and Source but symmetrically with the *ki*-marked thematic Benefactive, with regard to their A-movement properties.

3. (A)symmetries in the Rukai passive voice constructions

In section 2, we have seen that in the active voice constructions, the oblique marker *ki* can mark various thematic roles. In this section, the attention will be drawn to the distinct A-movement properties between two sets of the passive voice constructions in Rukai: one involves the Theme and the Recipient/Source, and the other contains the theme and the Benefactive.

In the Rukai passive that involves a Benefactive, either the Benefactive (16a-b) or the Theme (17a-b) can be raised to the subject position.

⁷ It seems unclear how the interpretation of *ki*-phrase is determined. For instance, the *ki*-phrase denotes a Recipient in (1a) but a Benefactive in (4). The problem is more evident in (13): sentence (13) is identical to sentence (4) except for the interpretation of the *ki*-phrase. I tentatively assume that the principle that can rule out the opposite situation (e.g., the *ki*-phrase denotes a Benefactive in (1a) and a Recipient in (4)) is pragmatic and conditioned by linguistic context. I leave this problem for further research.

- (16) a. ki-a-cikipi ku laimai nakuane ka Muni
 PASS-NFUT-knit ACC clothes 1SG.OBL NOM PN
 ‘(lit.) Muni is having the clothes knitted for her by me.’
 ‘The clothes were knitted for Muni by me.’
 b. ki-a-bulru-bulru ku abulru nakuane ka Muni
 PASS-NFUT-RED-tell ACC story 1SG.OBL NOM PN
 ‘(lit.) Muni is having the story told for her by me.’
 ‘The story was told for Muni by me.’
- (17) a. ki-a-cikipi ki Muni nakuane ka laimai
 PASS-NFUT-knit OBL PN 1SG.OBL NOM clothes
 ‘The clothes were knitted for Muni by me.’
 b. ki-a-bulru-bulru ki Muni nakuane ka abulru
 PASS-NFUT-RED-teach OBL PN 1SG.OBL NOM story
 ‘The story was told for Muni by me.’

In the passive that involves a Source or a Recipient, on the other hand, the Source (18a) and the Recipient (18b-c) can be marked as nominative, whereas the Theme cannot (19a-c).⁸

- (18) a. ki-a-langai ku daane nakuane ka Takanau
 PASS-NFUT-buy ACC house 1SG.OBL NOM PN
 ‘(lit.) Takanau is having the house bought from him by me.’
 ‘Takanau sold the house to me.’
 b. ki-a-bai ku laimai nakuane ka Muni
 PASS-NFUT-give ACC clothes 1SG.OBL NOM PN
 ‘Muni was given the clothes by me.’
 c. ki-a-saalru ku paisu nakuane ka Takanau
 PASS-NFUT-lend ACC money 1SG.OBL NOM PN
 ‘(lit.) Takanau is having the money lent to him by me.’
 ‘Takanau borrowed the money from me.’
- (19) a. * ki-a-langai ki Takanau nakuane ka daane
 PASS-NFUT-buy OBL PN 1SG.OBL NOM house
 ‘(Intended meaning) The house was bought from Takanau by me.’
 b. * ki-a-bai ki Muni nakuane ka laimai
 PASS-NFUT-give OBL PN 1SG.OBL NOM clothes
 ‘(Intended meaning) The clothes were given to Muni by me.’
 c. * ki-a-saalru ki Takanau nakuane ka paisu
 PASS-NFUT-lend OBL PN 1SG.OBL NOM money
 ‘(Intenden meaning) The money was lent to Takanau by Muni.’

Interestingly, (19a-c) become acceptable if the Source and the Recipient is removed. Compare (20a-c):

⁸ I find (18b) unacceptable, in contrast to Chen’s (2008) observation.

- (20) a. ki-a-langai nakuane ka daane
 PASS-NFUT-buy1SG.OBL NOM house
 ‘The house was bought by me.’
- b. ki-a-bai nakuane ka laimai
 PASS-NFUT-give 1SG.OBL NOM clothes
 ‘The clothes were given by me (to someone).’
- c. ki-a-saalru nakuane ka paisu
 PASS-NFUT-lend 1SG.OBL NOM money
 ‘The money was lent by me.’

In the next section, I will argue that the *ki*-marked thematic roles are in fact applied arguments in applicatives, as proposed by Pylkkänen (2002). In addition, the (a)symmetries in the passive as shown above can be accounted for by the phased-based approach in McGinnis (2001, 2002).

4. Arguing for applicatives in Rukai

The comparison among (18b-c), (19b-c), and (20b-c) reminds us of similar phenomena in English (21a-g).

- (21) a. He was given the book by me.
 b. The book was given to John by me.
 c. * The book was given John by me.
 d. John was baked a cake by me.
 e. * A cake was baked John by me.
 f. A cake was baked by me.

Like (18b-c), (21c) and (21e) are ungrammatical when the Recipient John is present. And similar to (20b-c), (21f) is acceptable where the Recipient is removed. More importantly, the ungrammaticality in (19) and (21c) on one hand and the grammaticality in (21b) on the other suggest that the *ki*-phrase in the Rukai active sentence is more like the indirect object in (22a) but not the *to*-phrase in (22b).

- (22) a. I gave John the book.
 b. I gave the book to John.

Following the observation above, we may speculate that the contrast between (19) and (20) is due to A-movement properties. In other words, the *ki*-phrase is an argument located higher than the Theme argument and the ungrammaticality in (19) is a result from the violation of relativized locality (Rizzi 1990; Chomsky 1995; McGinnis 1998, 2001, 2002). More specifically, I argue that the *ki*-phrase is an applied argument in Pylkkänen’s (2001) sense.

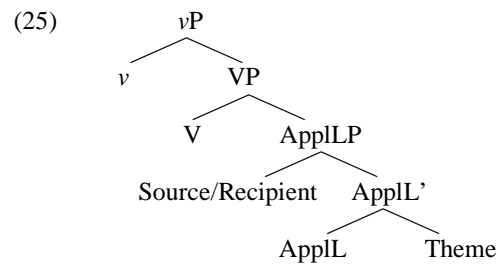
In section 4.1 I will elaborate more on the proposed applicatives that involve the Recipient and the Source.

4.1 Low Recipient/Source applicatives in Rukai

According to Pylkkänen (2002), Low applicatives head a relation between two individuals. Such relation can be interpreted as a transfer of possession (either a ‘to-the-possession-of’ or a ‘from-the-possession-of’ relation). Based on the discussion in previous sections, I follow Pylkkänen and argue that (23) involves a Low Recipient applicative and (24) a Low Source applicative, with the *ki*-marked Recipient and Source base-generated in the respective specifier of ApplL_{Recipient/Source}, and the Theme as the complement of ApplL, as shown in (25).⁹

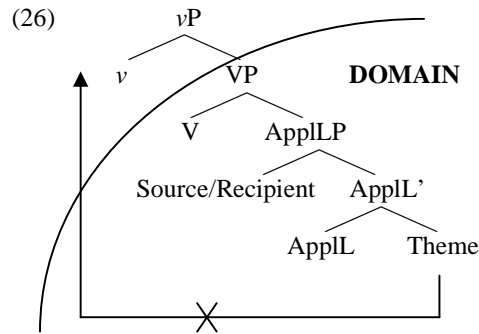
(23) wa-bayi ku laimai ki Muni ka Takanau
 NFUT-give ACC clothes OBL PN NOM PN
 ‘Takanau gave the clothes to Muni.’

(24) wa-langai ku daane ki Takanau ka Muni
 NFUT-buy ACC house OBL PN NOM PN
 ‘Muni bought the house from Takanau.’



Along this line of thoughts, the contrast between (18), (19), and (20) can then be accounted for by the phase-based approach proposed in Chomsky (2001) and McGinnis (2001, 2002). Since A-movement respects relativized locality, in the Rukai passives only the higher, applied object, namely the Source or the Recipient, can A-move to the subject position. Following McGinnis (2001, 2002), I argue that this is because in Low applicatives, both the Source/Recipient and the Theme are within the domain of the *vP* phase. Therefore, the phase-EPP feature added to *vP* can be checked only by the Source or the Recipient, which is located higher than the Theme, as exemplified by (26).

⁹ Diagrams (25) and (26) face a problem regarding word order. In the surface order, the Theme argument precedes the Recipient/Source, as in (23)-(24). However, the Theme is placed after the Recipient/Source in (25-26). For expository convenience, word order issues do not concern us here. Whether Rukai has left/right branching specifier/complement or scrambling phenomena is irrelevant here.



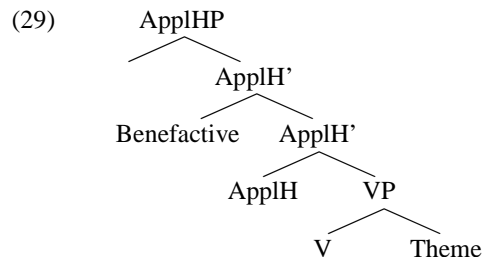
As represented in (26), since the Source/Recipient is closer to T, it blocks the lower Theme from A-moving to the specifier of T, hence the contrast between (18) and (19). Moreover, since (20) involves no Source/Recipient (hence not an applicative), in contrast to (19), the Theme is not prevented from undergoing A-movement to the subject position.

4.2 High Benefactive applicatives in Rukai

We have seen in (16) and (17) that both the Theme and the Benefactive can be the subject in the Rukai passive. Along the reasoning presented above, I argue that (5) and (6), repeated here as (27) and (28), involve the High applicative, which according to Pykkänen (2002), heads a relation between an individual, an applied argument, and an event described by the verb, with the *ki*-marked Benefactive base-generated in the specifier of ApplH^{Benefactive}, and the Theme as the complement of V, as shown in (29).

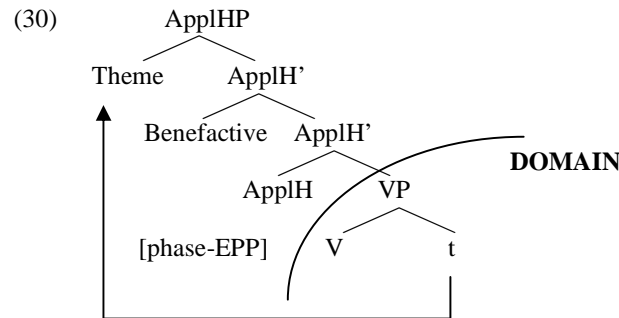
- (27) wa-cikipi ku laimai ka Muni ki Takanau
 NFUT-knit ACC clothes NOM PN OBL PN
 ‘Muni knitted the clothes for Takanau.’

- (28) wa-bulru-bulru-aku ku abulru ki Muni
 NFUT-RED-tell-1SG.NOM ACC story OBL PN
 ‘I told the story for Muni.’

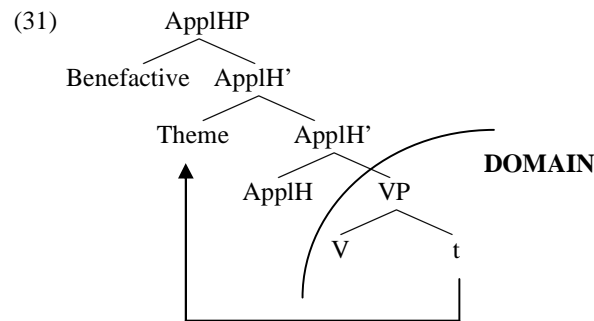


The fact that both the Theme and the Benefactive can move to the subject

position, as in (17), then can be accounted for by the phase-based approach. As demonstrated in (30), ApplH heads a phase (for it is the sister of VP and, perhaps in combination with VP, assigns a theta-role to the applied argument generated in its specifier), thus providing an “escape-hatch” for the lower Theme to stack up above the higher Benefactive, without locality violations, to check the phase-EPP feature added to ApplHP in the passive (McGinnis 2001, 2002). Once the Theme occupies the higher specifier of ApplH and is closer than the Benefactive to T, it can move further to the specifier of T, hence the subject.



According to McGinnis (2001, 2002), phase-EPP on ApplH is obligatory, but the DO and IO in spec-ApplHP may be in either c-command order. Thus, for the Benefactive to be the subject in (16), the Theme tucks in underneath rather than stacks up above the Benefactive, as shown in (31).



4.3 Summary

Based on Pylkkänen and McGinnis, I have proposed that Rukai has applicatives and at least three applicative heads, namely ApplH_{Benefactive}, ApplL_{Source}, and ApplL_{Recipient}.¹⁰ If the analysis is on the right track, then rather than an “oblique” marker, the marker *ki* in these cases is used to mark the applied

¹⁰ I assume that applicative heads in Rukai have no overt realizations.

argument. In the next section, I will examine Rukai's inventory of applicative heads.

5. Rukai's inventory of applicative heads

Chomsky (1998) claims that a particular language must make its own selection from a universal inventory of functional elements. He also points out that crosslinguistic variations have two sources: (i) selection and (ii) the way a language packages the selected elements into syntactic heads. Thus, after arguing for the three applicative heads (e.g., ApplHBenefactive, ApplLSource, and ApplLRecipient) in Rukai, I now turn to the question: how many applicative heads exist in Rukai? More specifically, are the actives (7)-(12) and (14)-(15) applicatives? This question is difficult because we can no longer rely on the locality violation test, since these actives does not involve the Theme.

However, I argue that the answer is positive for two reasons. First, these Theme-lacking actives have their passive counterparts (32)-(34).

Benefactive

- (32) a. ki-a¹¹-tu-daane nakuane ka Takanau
 PASS-NFUT-do-house 1SG.OBL NOM PN
 ‘(lit.) Takanau is having a house built for him by me.’
 ‘I built a house for Takanau.’
 b. ki-a-dralrai nakuane ka Takanau
 PASS-NFUT-dance 1SG.OBL NOM PN
 ‘(lit.) Takanau is danced for by me.’
 ‘I danced for Takanau.’
 c. ki-a-sena nakuane ka Muni
 PASS-NFUT-sing 1SG.OBL NOM PN
 ‘(lit.) Muni is sung for by me.’
 ‘I sang for Muni.’

Goal

- (33) a. ki-a-kela nakuane ka daane-su
 PASS-NFUT-come 1SG.OBL NOM house-2SG.GEN
 ‘(lit.) Your house was come to by me.’
 ‘Your house was visited by me.’
 b. ki-a-daruru nakuane ka daane-su
 PASS-NFUT-arrive 1SG.OBL NOM house-2SG.GEN
 ‘(lit.) Your house was arrived at by me.’
 ‘Your house was visited by me.’

¹¹ Note that the affixing ordering in (7) and (35a) below is reversed in (32a). The verbal prefix *tu-* precedes the nonfuture prefix *a-* in (7) and (35a) but the former occurs after the latter in (32a). Although not the main concern of the paper, this is rather puzzling and worth a note. I thank the anonymous reviewer who pointed this out.

Reason/Malefactive

- (34) a. ki-a-lakai nakuane ka Takanau
 PASS-NFUT-laugh 1SG.OBL NOM PN
 ‘(lit.) Takanau was laughed at by me.’
 ‘Takanau was ridiculed by me.’
- b. ki-a-tubi nakuane ka Takanau
 PASS-NFUT-cry 1SG.OBL NOM PN
 ‘(lit.) Takanau was cried for by me.’
 ‘Takanau saddened me.’

Since the Benefactive/Goal/Malefactive/Reason can be passivized, as in (32)-(34), they are supposed to be core arguments rather than oblique elements. Specifically, they are applied arguments introduced by the applicative head. The fact that in the active the Benefactive/Goal/Malefactive/Reason can be marked only by *ki* but not the accusative *ku*, as exemplified by (35)-(37), denies their status as the internal argument of V.

Benefactive

- (35) a. tu-a-daane ka Muni ki/*ku lalake
 do-NFUT-house NOM PN OBL/ACC child
 ‘Muni built the house for the child.’
- b. wa-dralra-dhaku ki/*ku lalake
 NFUT-dance-1SG.NOM OBL/ACC child
 ‘I danced for Muni.’
- c. wa-sena-dhaku ki/*ku lalake
 NFUT-sing-1SG.NOM OBL/ACC child
 ‘I sang for the child.’

Goal

- (36) a. wa-kela ki/*ku daane-li ka Muni
 NFUT-come OBL/ACC house-1SG.GEN NOM PN
 ‘Muni came to my house.’
- b. wa-daruru ki/*ku daane-li ka Muni
 NFUT-arrive OBL/ACC house-1SG.GEN NOM PN
 ‘Muni arrived at my house.’

Malefactive/Reason

- (37) a. wa-tubi ki/*ku lalake ka Muni
 NFUT-cry OBL/ACC child NOM PN
 ‘Muni cried because of the child.’
- b. wa-lakai ki/*ku lalake ka Muni
 NFUT-laugh OBL/ACC child NOM PN
 ‘Muni laughed because of the child.’

Thus, (35)-(37) are all applicatives denoting a relation between an individual (e.g., Benefactive/Goal/Malefactive/Reason) and an event described by the verb. Following the Transitivity Restriction (Pylkkänen 2002) that (i) only High applicative heads should be able to combine with unergatives, and (ii) Low applicative heads denote a relation between the applied/direct objects, thus

cannot appear in structures lacking a DO, I argue that (35)-(37) are High applicatives that involve ApplHBenefactive, ApplHGoal, ApplHMalefactive, and ApplHReason, respectively.

So far, we have seen that aside from ApplHBenefactive, ApplLSource, and ApplLRecipient, Rukai has another three High applicative heads ApplHGoal, ApplHMalefactive, and ApplHReason. We may now continue to wonder whether other applicative heads exist in Rukai, such as ApplHInstrument, ApplHLocative, ApplHAffectee, and ApplHPossessorAffectee proposed for Atayal in Chen (2007). A close scrutiny of the linguistic data reveals that the answer is negative. It seems that the Rukai inventory of applicative heads does not include ApplHInstrument. To encode the Instrument in an event, Rukai must rely on serial verb constructions, rather than just *ki*-mark the the Instrument. Compare (38a) with (38b-d):

Instrument

- (38) a. arakai ku kwange pa-pacai ku babui ka Muni
use ACC gun CAU-die ACC boar NOM PN
'Muni used the gun to kill the boar.'
- b. * wa-pa-pacai ku babui ki kwange ka Muni
NFUT-CAU-die ACC boar OBL gun NOM PN
'(Intended meaning) Muni killed the boar with a gun.'
- c. * ki-a-pa-pacai ki kwange nakuane ka babui
PASS-NFUT-die OBL gun 1SG.OBL NOM boar
'(Intended meaning) The boar was killed by me with a gun.'
- d. * ki-a-pa-pacai ku babui nakuane ka kwange
PASS-NFUT-die ACC boar 1SG.OBL NOM gun
'(Intended meaning) The gun was used by me to kill the boar.'

The same behaviors are observed for the Locative: Rukai does not have ApplHLocative. Compare (39a, d) with (39b-c, e-f) and (39g) with (39h-j):¹²

Locative

(39) *Intransitive*

- a. wa-pacai i-kai ki daane-li ka Muni
NFUT-die be-DEM OBL house-1SG.GEN NOMP
'Muni died in my house.'
- b. * wa-pacai ki daane-li ka Muni
NFUT-die OBL house-1SG.GEN NOM PN
'(Intended meaning) Muni died in my house.'
- c. * ki-a-pacai iniane ka daane-li
PASS-NFUT-die 3SG.OBL NOM house-1SG.GEN
'(Intended meaning) My house is where he/she died.'

¹² An anonymous reviewer wondered why the Locative argument marked by *ki* fails to occur as the subject in (39), in contrast to the *ki*-marked elements in (32)-(34). I agree with the reviewer that the contrasts between (32)-(34) on one hand, and (39) on the other, imply that Rukai may have two types of *ki*, one for core argument and the other for oblique argument. However, currently I have no solid evidence for this non-uniform approach and leave this issue for further investigation.

- d. wa-dralrai i-kai ki daane-li ka Muni
 NFUT-dance be-DEM OBL house-1SG.GEN NOM PN
 ‘Muni danced in my house.’
- e. * wa-dralrai ki daane-li ka Muni
 NFUT-dance OBL house-1SG.GEN NOM PN
 ‘(Intended meaning) Muni danced in my house.’
- f. * ki-a-dralrai iniane ka daane-li
 PASS-NFUT-dance 3SG.OBL NOM house-1SG.GEN
 ‘(Intended meaning) My house is where he/she danced.’

Transitive

- g. wa-cikipi ku laimai i-kai ki daane ka Muni
 NFUT-knit ACC clothes be-DEM OBL house NOM PN
 ‘Muni knitted the clothes in a house.’
- h. * wa-cikipi ku laimai ki daane ka Muni
 NFUT-knit ACC clothes OBL house NOM PN
 ‘(Intended meaning) Muni knitted the clothes in a house.’
- i. * ki-a-cikipi ki daane nakuane ka laimai
 PASS-NFUT-knit OBL house 1SG.OBL NOM clothes
 ‘(Intended meaning) The clothes were knitted by me in a house.’
- j. * ki-a-cikipi ku daane nakuane ka daane
 PASS-NFUT-knit ACC house 1SG.OBL NOM house
 ‘(Intended meaning) The house was where I knitted the clothes.’

As for the Affectee, Rukai’s inventory of applicative heads does not seem to house ApplHAffectee (40) and ApplHPossessorAffectee (41):

- (40) wa-pacai ki Takanau ka Muni
 NFUT-die OBL PN NOM PN
 ‘(Intended meaning) Muni died on Takanau.’
- (41) a. * wa-kane ku babui ki Takanau ka Muni
 NFUT-eat ACC boar OBL PN NOM PN
 ‘(Intended meaning) Muni ate the boar on Takanau.’
- b. * ki-a-kane ku babui ki Muni ka Takanau
 PASS-NFUT-eat ACC boar OBL PN NOM PN
 ‘(Intended meaning) Takanau was eaten the boar on by Muni.’

To summarize, the applicative heads in Rukai include (at least) ApplHBenefactive, ApplLSource, ApplLRecipient, ApplHGoal, ApplHMalefactive, and ApplHReason. In Section 5, I will sidetrack a little bit and briefly discuss what implications the Rukai applicative might have for the Rukai objective voice proposed by Chen (2008).

6. A response to Chen’s (2008) tripartite voice distinction in Rukai

Chen (2008) establishes a connection between nominalization and grammatical voice formation in Rukai, for which the object voice was argued to be a type of

voice constructed via nominalization. The object voice exhibits similarities with the passive voice in that it promotes objects to be syntactic subjects. Besides, unlike the passive, which can apply to the direct or indirect object in double-object sentences, the object voice only applies to the direct object, as shown in (42).

- (42) a. ta-badh-ane-li ki Takanau ka laimai
 NFUT-give-OV-1SG.Gen OBL PN NOM clothes
 ‘The clothes are what I gave Takanau.’
 b. * ta-badh-ane-li ku laimai ka Takanau
 NFUT-give-OV-1SG.GEN ACC clothes NOM PN
 ‘(Intended meaning) Takanau is given clothes by me.’

However, if the analysis in this paper is correct (e.g. the Recipient in (42) is generated in the specifier of ApplLRecipient, higher than the Theme) and if the object voice is, as proposed by Chen, on par with the active and the passive, we should not expect that in the objective voice construction the IO fails to move to the subject position (since it does not violate any locality condition). Also, the DO leapfrogs over the IO without inducing any violation of locality is unexpected. In short, unless the dilemma as described above can be resolved, the recognition of the three-way distinction of grammatical voice in Rukai is inappropriate.

7. Concluding remarks

In this paper, I attempted to examine applicatives in Rukai. We observed that the oblique marker *ki* can serve to mark distinct thematic roles, including the Recipient, the Source, the Benefactive, the Goal, the Malefactive, and the Reason. I further argued that (i) the *ki*-marked thematic roles are in fact applied arguments in applicatives; (ii) the (a)symmetries in the passive are due to A-movement properties that can be accounted for by the phased-based account; (iii) Rukai’s inventory of applicative heads houses at least ApplHBenefactive, ApplLSource, ApplLRecipient, ApplHGoal, ApplHMalefactive, and ApplHReason; and (iv) the claim that Rukai has tripartite distinction of grammatical voice (e.g., the active/passive/object voice) is questionable.

References

- Chen, Cheng-fu. 2008. *Aspect and Tense in Rukai: Interpretation and Interaction*. Texas: University of Texas at Austin doctoral dissertation.
 Chen, Sih-wei. 2007. *Applicative Constructions in Atayal*. Hsinchu: National Tsing Hua University master thesis.
 Chomsky, Noam. 1995. Categories and transformations. *The Minimalist Program*: 219-394. Cambridge: MIT Press.
 Chomsky, Noam. 1998. *Minimalist Inquiries: The Framework*. Cambridge: MIT Press.
 Chomsky, Noam. 2001. Derivation by phase. *A Life in Language*, ed. by Michael Kenstowicz and Kenneth Hale, 1-52. Cambridge: MIT Press.
 McGinnis, Martha. 1998. *Locality in A-movement*. Cambridge: Massachusetts Institute of Technology doctoral dissertation.

- McGinnis, Martha. 2001. Variation in the phase structure of applicatives. *Linguistic Variations Yearbook*, ed. by Pierre Pica and Johan Rooryck, 101-142. Amsterdam: John Benjamins.
- McGinnis, Martha. 2002. Object asymmetries in a phase theory of syntax. *Proceedings of the 2001 CLA Annual Conference*, ed. by John Jensen and Gerard van Herk, 133-144. Ottawa: Department of Linguistics, University of Ottawa.
- Pylkkänen, Liina. 2002. *Introducing Arguments*. Cambridge: Massachusetts Institute of Technology doctoral dissertation.
- Rizzi, Luigi. 1990. *Relativized Minimality*. Cambridge: Cambridge University Press.

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